Abstract

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A computing system for performing stateful distributed computing includes a client machine having a Client Runtime Environment (CRE) that is adapted to maintain the state of an application in the client machine. The CRE maintains state of the application by first retrieving a first markup document of the application, creating and

10 storing a first object oriented representation of information contained in the first markup document. The first object oriented representation defines a first state of the application. Next, retrieving a second markup document, creating and storing a second object oriented representation of information contained in the second markup document. Finally merging the first and second object oriented representations thereby forming a new object oriented

15 representation of information contained in the first or the second markup documents. This new object oriented representation defines a new state of said application. The CRE may further update the new state of the application by retrieving one or more additional markup documents, creating and storing one or more additional object oriented representations of information contained in the one or more additional markup

20 documents, respectively, and merging the one or more additional object oriented representations with the new object oriented representation thereby forming an updated state of the application.

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